



CONCRETE ADMIXTURES FIELD SECTION 1054

1054.1 SCOPE. To establish procedures for inspection, acceptance and reporting of air-entraining admixtures, water-reducing admixtures, retarding admixtures, accelerating admixtures and latex emulsion admixtures for use in Portland cement concrete.

1054.2 APPARATUS.

- (a) One quart [1 liter] screw top cans which are clean, dry and free of all contaminants.
- (b) One gallon [4 liter] plastic containers which are clean, dry and free of all contaminants.

1054.3 PROCEDURE.

1054.3.1 Pre-Acceptance Lists. Manufacturers and Brand Names of air-entraining admixtures, water-reducing admixtures, retarding admixtures, accelerating admixtures, latex emulsion admixtures and high range water-reducing admixtures will be placed on the Pre-Acceptance List maintained by the State Construction and Materials Engineer in accordance with 1054.3.2 and the applicable specification. These lists are found in the Pre-Acceptance Lists & PAL Forms section of this Manual, and on MoDOT's web site. **NOTE: High range water-reducing admixtures are permitted only when specified in the contract.**

1054.3.2 Manufacturer and Brand Name Approval. If a manufacturer desires to have material added to the Pre-Acceptance List of admixtures, a certification and guarantee must be submitted to the State Construction and Materials Engineer in accordance with the requirements of Specification Sec 1054. The certification and guarantee shall be accompanied by a one quart [1 liter] sample of air-entraining admixture, water-reducing admixture (including high range) or retarding admixture as applicable. A one-gallon [4 liter] sample of accelerating admixture or latex emulsion admixture shall be submitted for qualification. Upon approval of the admixture, it will be placed on the applicable list.

1054.3.3 Basis of Acceptance. Material is accepted by the PAL criteria as indicated in GS-13. The State Construction and Materials Engineer will retain the original certification and guarantee. Additional certification is not necessary if the manufacturer and brand of material is clearly identified on the container or the documentation included with bulk shipments.

1054.3.4 Sampling.

1054.3.4.1 Manufacturing Facility. Each admixture producer will be assigned to a district office for Facility Review, Sampling and Testing in accordance with GS-13. During the visit, samples of material available at the facility should be obtained. Materials selected for sampling will typically be those that have been used in MoDOT work during the past month. Material originating at locations too far from the assigned district's office is subject to sampling at an intermediate location or at the job site. It is the assigned district's responsibility to verify with the supplier that the location selected for sampling is acceptable to the supplier as a location from which a valid PAL source sample may be obtained.

1054.3.4.2 Mixing Facility. The District shall submit to the Laboratory a representative sample of each admixture being used, at startup or during plant calibration, and at intervals not to exceed six months.



1054.3.4.3 Sample. A sample of air-entraining admixture, water-reducing admixture, or retarding admixture shall consist of one quart [1 liter] of material in a screw top can. A sample of accelerating admixture or latex emulsion admixture shall consist of one gallon [4 liters] of material in a plastic container. All samples shall be obtained by the manufacturer or contractor's agent in accordance with the manufacturer's sampling instructions. The inspector will observe the sampling process. The sample shall be recorded through SiteManager showing the manufacturer's name, the brand name and designation of the material, lot number, net quantity represented, and the location where the sample was obtained using the Sampled From and Sample Origin fields of SiteManager. The Other tab is also used for a Mixing Facility. The PAL ID number obtained by the supplier or mixing facility in accordance with Section 1054.3.5.2 should be recorded in SiteManager in the "Link To" field.

1054.3.5 Sample Record.

1054.3.5.1 Test results on random samples of admixtures shall be reported by the Laboratory in accordance with [Laboratory Sec 1054](#) and General Sec 13 of this Manual.

1054.3.5.2 For material shipped directly to a job site by a supplier, the supplier shall notify the State Construction and Materials Engineer prior to shipment using GS13Form3. When the material is shipped to a mixing facility, that facility shall notify the State Construction and Materials Engineer of its arrival using GS13F2. When complete and correct information on the shipment is provided to the State Construction and Materials Engineer, a PAL ID number will be assigned to the material. That number shall be attached to the material container, or be immediately available at the plant, until the material is consumed. The proportioning plant inspector shall continue to show on the daily reports the information required by the Construction Manual, Sec 500.

1054.3.5.3 Material purchased for maintenance work may be accepted solely on the basis of the manufacturer and brand being on the Pre-Acceptance List. District Materials will report the receipt and acceptance of the material in SiteManager and will mark the containers with the sample ID number they assign.



MATERIALS